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THERAPEUTIC USE OF BACILLUS PRODIGIOSUS IN THE USSR

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Investigations on the antibiotic properties of *B. prodigiosus* [*Serratia marcescens*] have been conducted in Russia since 1886. In that year N. F. Gamaleya for the first time investigated thoroughly the properties of this microorganism. In 1887, A. D. Pavlovskiy published an article in which he described the results of his experiments on using *B. prodigiosus* to treat the cutaneous form of anthrax in rabbits. In 1894, N. P. Tishutkin submitted a dissertation in which the action of *B. prodigiosus* on Achiorion [*Trichophyton*] fungi which cause mange was described. Other Russian investigators, including O. Ling, also studied the properties of *B. prodigiosus*.

However, the greatest successes in the application of this microorganism in both human and veterinary medicine were achieved during the Soviet period. A group directed by Prof B. I. Kurochkin utilized *B. prodigiosus* for the active suppression of *Staph. aureus* and applied *B. prodigiosus* in the treatment of open suppurating wounds. In a liquid nutrient medium, *Bacilli prodigiosi* kill 2.5 times their quantity of staphylococci within one minute.

*B. prodigiosus* is also used for the treatment of persons who carry diphtheria bacilli. As a rule, people who have recovered from diphtheria remain carriers of bacilli for a long time. However, the majority of diphtheria bacilli carriers (93.2%) are rid of the causative factor of this disease entirely within 2 weeks if a suspension of *B. prodigiosus* is dropped into their nose and pharynx.

The pigment of *B. prodigiosus*, prodigiosin, has a considerable antibiotic activity. It suppresses *Staph. aureus* and can be used as an effective remedy.

USSR scientists have investigated *B. prodigiosus* only for the purpose of treating diseases. On the other hand, the Germans, during the occupation of Paris in World War II, used *B. prodigiosus* as a test organism in Paris subways and at the Place de la Concorde in investigating procedures for biological warfare.

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